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ACCESSION NR: AP4048836

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is considered as an example illustrating the use of the formulas. Orig. art. has: 2 figures and 10 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00

SUB CODE: IE NO REF SOV: 004 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SINYAGOVSKIY, I.N.; SOBOLEV, V.I.; YAKUNIN, I.A.

Improvement of the system of the development of the petroleum and gas pools of the coal-bearing stratum of the Korobkovo field. Trudy VNIING no.2:52-64 '63. (MIRA 17:5)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

VILENKIN, N.Ya.; GORIN, Ye.A.; KOSTYUCHENKO, A.G.; KRASNOSEL'SKIY, M.A.; KREYN, S.G.; MASLOV, V.P.; MITYAGIN, B.S.; PETUNIN, Yu.I.; RUTITSKIY, Ya.B.; SOBOLEV, V.I.; STETSENKO, V.Ya.; FADDEYEV, L.D.; TSITLANADZE, E.S.; LYUSTERNIK, L.A., red.; YANPOL'SKIY, A.R., red.; GAPOSHKIN, V.F., red.

[Functional analysis] Funktsional'nyi analiz. [By] N.IA. Vilenkin i dr. Moskva, Izd-vo "Nauka," 1964. 424 p. (MIRA 17:6)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SINYAGOVSKIY, I.N.; SORGIEV, V.I.; YAKUNIN, I.A.

Improving the development of the oil and gas pool of a coal-bearing series in the Korobkovskoye oil field. Trudy VNIING no.2:52-64 '63. (MIRA 17:10)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KRASNOSEL'SKIY, M.A.; KREYN, S.G.; [illegible]SKIY, Ya.B.; SOBOLEV, V.I.

Mathematical events at Voronezh. Usp. mat. nauk 19 no.3:225-245 My-Je '64. (MIRA 17:10)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

Sokolov, A. I.

O sobstvennykh elementakh nekotorykh nelineynykh operatorov. Dan, 31 (1941), 734-736.

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A. G.,
Markushevich, A. I.,
Rashevskiy, P. K.
Moscow-Leningrad, 1948

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

176T58

USSR/Mathematics - Nonlinear Equation 11 Apr 50

"Nonlinear Integral Equation," V. I. Sobolev, Voronezh State U

"Dok Ak Nauk SSSR" Vol LXXI, No 5, pp 831-834

Considers eq $\int_B K(s,t)\cdot(t, x(t))\cdot dt = m.x(s)$. Here B is bound measurable region of n-dimensional Euclidean space; K, s, t are in B and are sym, pos, and continuous in BB kernal; $g(t,u)$ is defined and measurable for all t in B and $g(t,-u) = -g(t,u)$, etc. Submitted 13 Feb 50 by Acad I. G. Petrovskiy.

176T58

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 562 - I

Call No.: AF 437939

BOOK
Authors: LYUSTERNIK, L. A. and SOBOLEV, V. I.
Full Title: ELEMENTS OF FUNCTIONAL ANALYSIS
Transliterated Title: Elementy funktsional'nogo analiza

PUBLISHING DATA
Originating Agency: None
Publishing House: State Publishing House of Technical and Theoretical Literature
Date: 1951 No. pp.: 360 No. of copies: 6,000
Editorial Staff
Editors: V. G. Ashkinuze and D. A. Raykov. Contributors:
Yu. B. Germeyer, A. I. Plesner and M. P. Shura-Bura

PURPOSE: A textbook for University Mathematical Departments

TEXT DATA
Coverage: In the preface, the authors explain the value of functional analysis in its application to theoretical and applied mathematics in various fields as developed during the last decades. The introduction states that the functional analysis is not only a generalization, but also a "geometrization" of basical principles and methods of the classical analysis by the introduction of abstract space. The text is divided into six chapters and two appendices. The first chapter deals with metric space and the theory of sets. The second covers linear spaces and linear operators. The third discusses linear functionals. In the fourth, entirely continuous operators are presented. The fifth chapter gives the elements of the spectral theory of self-conjugated operators in Hilbert's space. In the sixth the authors discuss some

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AID 562 - I

Elementy funktsional'nogo analiza

questions of non-linear functional analysis. Appendix I gives auziliary inequalities and Appendix II two methods to find the n-th derivative of a function of a real variable. The book has a list of literature for reference and an index with a table of pages which contain major properties of the most important functional spaces: elements and metric, norm, fullness, separability, general type of a linear functional, regularity.

No. of References: Total 51, 1903-1951, of which 39 are Russian.

Facilities: None

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

USSR/Mathematics - Nonlinear Integral Equations 11 Aug 51

"Concerning a Class of Nonlinear Integral Equations," Ye, P. Voskresenskiy, V. I. Sobolev

"Dok Ak Nauk SSSR" Vol LXXIX, No 5, pp 717, 718

Demonstrates that the results of M. M. Vaynberg ("Dok Ak Nauk SSSR" Vol LXXV, No 5, 1950) can be extended to the case of nuclei (kernels) of the form $K(t,s) = a(t)b(s)Q(t,s)$ where $Q(t,s)$ is a sym kernel. It had been shown that not less than a countable number of definitely normed solns of $mx(t) = \int_B K(t,s)g(s,x(s))ds$ exist for the case

210T53

USSR/Mathematics - Nonlinear Integral Equations (Contd) 11 Aug 51

of sym K and for certain supplementary limitations placed on this kernel and g; Vaynberg had generalized this result by eliminating part of the restrictions but preserving the assumption of symmetry. Submitted by Acad M. A. Lavrent'yev 26 May 51.

210T53

SOBOLEV, V. I.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

USSR/Mathematics - Modern Algebra, Self-Adjoint Operators Jul/Aug 52

"A Property of Self-Adjoint Operators in a Hilbertian Space," V. I. Sobolev

"Uspekh Matemat Nauk" Vol VII, No 4 (50), pp 169-172

Confirms a statement made in the article "Semiordered groups and Linear Semiordered Spaces" by L. V. Kantorovich, B. Z. Vulikh and A. G. Pinsker ("Uspekh Matemat Nauk" Vol VI, No 3 (43), p 31, 1951): From the spectral expansion of self-adjoint operators it follows that self-adjoint operators defined in a Hilbert space and adjustable with a given operator form a K-space.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

Mathematical Reviews
Vol. 15 No. 4
Apr. 1954
Analysis

8-24-54
LL

Sobolev, V. I. On a partially ordered measure of sets, measurable functions and certain abstract integrals. Doklady Akad. Nauk SSSR (N.S.) 91, 23–26 (1953). (Russian)

Let X be a partially ordered ring as defined by the author in an earlier communication [same Doklady (N.S.) 56, 237–239 (1947); these Rev. 9, 290], and let $\{e_\lambda\}_{-\infty<\lambda<\infty}$ be a resolution of the identity in X. The usual theory of spectral measures can be extended to this context, and a countably additive function e on Borel sets of the line with values in X is defined such that $e(]\lambda, \mu[)=e_\mu-e_{\lambda+0}$ and $e(\{\lambda\})=e_{\lambda+0}-e_\lambda$ for $-\infty<\lambda<\mu<\infty$. Furthermore, one has $e(M\cap N)=e(M)e(N)$, just as in the usual theory. Integrals $\int_{-\infty}^{\infty} f(\lambda)de_\lambda$ are defined by Lebesgue sums, etc., in the usual fashion. For $a \in X$, let $\{e_\lambda^a\}$ be the resolution of the identity in X such that $a=\int_{-\infty}^{\infty}\lambda de_\lambda^a$. Then $b \in X$ has the form $\int_{-\infty}^{\infty} f(\lambda)de_\lambda^a$ if and only if for every interval Δ, there exists an a-measurable set M_Δ such that $e^b(\Delta)=e^a(M_\Delta)$.

E. Hewitt (Seattle, Wash.).

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

Sobolev, V. I.

Source: Mathematical Reviews, Vol.

Sobolev, V. I. On elements with inverses in partially ordered rings. Doklady Akad. Nauk SSSR (N.S.) 56, 237–239 (1947). (Russian)

The author considers a commutative ring with identity element which is also a partially ordered Kantorovitch space K_3 [Rec. Math. [Mat. Sbornik] N.S. 2(44), 121–165 (1937)]. Also (1) $x^2>0$ for $x\neq 0$ and $x>0$, $y>0$ imply $xy>0$; (2) $\inf(x, e)>0$ for all x; (3) if $\{x_n\}$ is a bounded sequence with $x_n\leqq x_{n+1}$, then $\sup(x_n y)=(\sup x_n)y$, for every y. An element y is said to be bounded provided $|y|\leqq Me$, for some real $M>0$. It is well known that there exists for each x a resolution of the identity e_λ, $-\infty<\lambda<\infty$, such that x can be represented in the form $x=\int_{-\infty}^{\infty}\lambda de_\lambda$ [H. Freudenthal, Nederl. Akad. Wetensch., Proc. 39, 645–651 (1936)]. A necessary and sufficient condition for a sequence $\{x_n\}$ to be convergent is that it is bounded and, for every idempotent e' with $0<e'\leqq e$ and every $\epsilon>0$, there exists an idempotent e'' with $0<e''\leqq e'$ such that $-\epsilon e''\leqq(x_m-x_n)e''\leqq\epsilon e''$ for $m\geqq n(\epsilon, e')$. That the algebraic operations are continuous follows easily. It is proved that a necessary and sufficient condition for the element $x-\alpha e$ to possess a bounded inverse is that α is a point of constancy for e_λ. It follows that x will possess a bounded inverse if, and only if, $|x|\geqq\alpha e$ for some $\alpha>0$. If $x-\alpha e$ has an inverse (not necessarily bounded) then α is a point of continuity for e_λ.

C. E. Rickart (New Haven, Conn.).

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

Voskresenskiĭ, E. P., and Sobolev, V. I. On a class of nonlinear integral equations. Doklady Akad. Nauk SSSR (N.S.) 79, 717–718 (1951). (Russian)

A result of Valiberg [same Doklady 75, 609–612 (1950); these Rev. 12, 713] on the existence of eigenvalues μ and eigenfunctions $x(t)$ for the equation

$$\mu x(t) = \int_a^b K(t, s) g(s, x(s)) ds$$

is extended to the case where $K(t, s)$ instead of being symmetric is of the form $a(t)b(s)Q(t, s)$ with $Q(t, s)$ symmetric and $a(t)$, $b(s)$ positive. *M. Golomb* (Lafayette, Ind.).

Source: Mathematical Reviews, Vol 13 No. 3

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

Sobolev, V. I. On linear functional equations. (Voronež. Gos. Univ. Trudy. Fiz.-Mat. Sb. 27 (195), 43–46. (Russian).

Another proof of the Fredholm theorem for the equation $U(x)-x=y$, where U is a completely continuous operator on a Banach space with basis.

D. C. Kleinecke (Albuquerque, N.M.).

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.I.

Sobolev, V. I. On a partially ordered measure of sets, measurable functions, and certain abstract integrals. Trudy Voronežsk. Gos. Univ. 33 (1954), 21–35. (Russian)

I-F/W

Let X be a partially ordered ring and $\{e_\lambda\}$, $-\infty \leq \lambda \leq +\infty$, some resolution of the identity. This generates a completely additive internal function $e(\Delta)$ with values in X defined by:

$$e(\Delta)=e_{\alpha+0}-e_\alpha \text{ if } \Delta \text{ consists of a single point } \alpha,$$

$$e(\Delta)=e_\mu-e_{\lambda+0} \text{ if } \Delta=(\lambda, \mu).$$

This function, as in the construction of linear Lebesgue measure, may be extended to open and closed sets, allowing one to introduce in the usual way the concepts of outer and inner measure of an arbitrary linear set and to establish the concepts of measurability and measure.

The constructed partially ordered measure of linear sets generates in the usual way the notion of a partially ordered Lebesgue-Stieltjes integral $\int_E f(\lambda)de_\lambda$, where $f(\lambda)$ is a real measurable (relative to the introduced measure) function on a linear set measurable in the considered sense.

The results of the author contain as a special case the theory of operator measures and operator integrals of A. I. Plesner [Plesner and Rohlin, Uspehi Mat. Nauk (N.S.) 1 (1946), no. 1(11), 71–191; MR 9, 43].

P. I. Romanovskiĭ (RŽMat 1955, no. 5162).

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

1709 (German.) Elements of Function Analysis, Elemente der Funktionalanalysis. L. A. Ljusternik and W. I. Sobolew. 250 p. 1955. Akademie-Verlag, Berlin. (QA326 L74e)
Metric and linear spaces, linear operators, and linear functionals. Problems of non-linear functional analyses. An advanced textbook.

Math 2

Sow RBB

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

USSR

Krasnosel'skiĭ, M. A., and Sobolev, V. I. Conditions of separability of Orlicz spaces. Izv. Akad. Nauk SSSR. Ser. Mat. 19, 59–68 (1955). (Russian)

This paper has two principal results: (1) The establishment of an isometry between $L_M^*(G)$ and $L_M^*(I)$, where I is the closed interval $[-\frac{1}{2}m(G), \frac{1}{2}m(G)]$, G is a closed set in Euclidean space and m is Lebesgue measure. (2) Theorem: L_M^* is separable if and only if M satisfies the Δ_2 condition for large u: $M(2u) \leq kM(u)$ for $u \geq 1$, k a constant. [For notations and other definitions see two previous papers by the first author and Rutickiĭ [Dokl. Akad. Nauk SSSR (N.S.) 81, 497–500 (1951); 89, 601–604 (1953); MR 13, 357; 15, 137]. In the first of these references the reference of the present results to the study of nonlinear integral operators is indicated without proof.] Proofs in the paper under review are simple and elegant. *B. R. Gelbaum.*

I=F/W

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

3

~~Sobolev, V. I.~~ On functions of elements of a partially ordered ring. Voronež. Gos. Univ. Trudy Sem. Funkcional. Anal. no. 1 (1956), 39–42. (Russian)
Proof of a theorem announced earlier [Dokl. Akad. Nauk SSSR (N.S.) 91 (1953), 23–26; MR 15, 297].
E. Hewitt (Seattle, Wash.).

1-F\W

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

IFW

2

Sobolev, V. I. Orlicz spaces over sets of infinite measure. Voronež. Gos. Univ. Trudy Sem. Funkcional. Anal. no. 2 (1956), 77–84. (Russian)

In a series of key results, the author shows that Orlicz spaces defined relative to sets of infinite measure have most of the properties which Orlicz spaces over sets of finite measure enjoy. Most of the computations are straightforward. *B. Gelbaum* (Minneapolis, Minn.).

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KRASNOSEL'SKIY, M.A.; SOBOLEV, V.I.

The Voronezh Seminar on functional analysis. Usp.mat.nauk 11 no.5: 249-250 S-O '56. (MLRA 10:2)
(Voronezh--Functional analysis)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SUBJECT USSR/MATHEMATICS/Functional analysis CARD 1/2 PG - 783
AUTHOR SOBOLEV V.I.
TITLE On the splitting up of linear operators.
PERIODICAL Doklady Akad.Nauk 111, 951-954 (1956)
reviewed 5/1957

The present paper contains an essential generalization and extension of a result due to Krasnosel'skij (Doklady Akad.Nauk 82, 3 (1952)). Let E be a Banach space, H a Hilbert space, where

$$E^* \supseteq H \supseteq E$$

$$\|x\|_{E^*} \leq a \|x\|_H, \quad x \in H; \quad \|x\|_H \leq b \|x\|_E, \quad x \in E.$$

Let H be dense everywhere in E* in the sense of the metric of E*. Let $\{x,y\}$ denote the value of the linear functional $y \in E^*$ on the element $x \in E$. If $y \in H$, then

$$\{x,y\} = (x,y),$$

where (x,y) is the scalar product of the elements of H. Let A be a linear operator defined on E* with values in E. Let A be selfadjoint: $\{Ax,y\} = \{Ay,x\}$ for all $x,y \in E$. Let A be positive: $A \neq 0$, $\{Ax,y\} \geq 0$.
Under these assumptions the following theorem is valid: A has an extension

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KRASNOSEL'SKIY, M.A.; SOBOLEV, V.I.

The decomposition of linear operators. Usp.mat.nauk 12 no.4:313-317 Jl-Ag '57. (MIRA 10:10)
(Operators (Mathematics))

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

16(1) PHASE I BOOK EXPLOITATION SOV/2660

Vsesoyuznyy matematicheskiy s"yezd. 3rd, Moscow, 1956

Trudy. t. 4: Kratkoye soderzhaniye sektsionnykh dokladov. Doklady inostrannykh uchenykh (Transactions of the 3rd All-Union Mathematical Conference in Moscow. vol. 4: Summary of Sectional Reports. Reports of Foreign Scientists) Moscow, Izd-vo AN SSSR, 1959. 247 p. 2,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Matematicheskiy institut.

Tech. Ed.: G.N. Shevchanko; Editorial Board: A.A. Abramov, V.G. Boltyanskiy, A.M. Vasil'yev, B.V. Medvedev, A.D. Myshkis, S.M. Nikol'skiy (Resp. Ed.), A.G. Postnikov, Yu. V. Prokhorov, K.A. Rybnikov, P. L. Ul'yanov, V.A. Uspenskiy, N.G. Chetayev, G. Ye. Shilov, and A.I. Shirshov.

PURPOSE: This book is intended for mathematicians and physicists.

COVERAGE: The book is Volume IV of the Transactions of the Third All-Union Mathematical Conference, held in June and July 1956. The book is divided into two main parts. The first part contains summaries of the papers presented by Soviet scientists at the Conference that were not included in the first two volumes. The second part contains the text of reports submitted to the editor by non-Soviet scientists. In those cases when the non-Soviet scientist did not submit a copy of his paper to the editor, the title of the paper is cited and, if the paper was printed in a previous volume, reference is made to the appropriate volume. The papers, both Soviet and non-Soviet, cover various topics in number theory, algebra, differential and integral equations, function theory, functional analysis, probability theory, topology, mathematical problems of mechanics and physics, computational mathematics, mathematical logic and the foundations of mathematics, and the history of mathematics.

Kadets, M.I. (Makeyevka). Topological equivalence of certain Banach spaces 54

Kas'min, Yu. A. (Moscow). On the character of the spectrum of certain classes of matrices in analytic space 55

Korenblyum, B.I. (Kiyev). A generalization of the Wiener Tauberian theorem and the spectrum of rapidly increasing functions 56

Mil'man, D.P. (Odessa). Certain theorems of nonlinear functional analysis and their application to the theory of local groups 58

Sobolev, V.I. (Voronezh). On semiordered rings 59

Page, M.K. (Chernovtsy). Local equivalence of ordinary linear differential operators of equal rank (see Uspekhi matematicheskikh nauk, XIII, Nr 1(79) (1958), pp 207-210) 60

Section on Probability Theory

Card 12/34

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I. I

Elements of functional analysis, by L.A. Lyusternik and V.I.Sobolev. New York Frederick Ungar, 1961.

ix, 227 p. diagrs.

Translated from the original Russian: Elementy funktsional'nogo analiza, Moscow, 1951

Bibliography: p. 219-221

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. I.

Doc Phys-Math Sci - (diss) "Studies on the theory of semi-ordered rings." Voronezh, 1961. 19 pp; (Ministry of Higher and Secondary Specialist Education Uzbek SSR, Tashkent State Univ imeni V. I. Lenin); 150 copies; price not given; (KL, 10-61 sup, 203)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

MUZYCHENKO, N.N.; SOBOLEV, V.I.; GLAGOLEVA, A.G.

Features of the gas accumulations in the Bobrikovo horizon of the Linevo gas field in Volgograd Province. Neftegaz. geol. i geofiz. no.9:37-41 '64. (MIRA 17:11)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina i Volgogradskiy nauchno-issledovatel'skiy institut neftyanoy i gazovoy promyshlennosti.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.I.

Structural analysis of static errors in instruments with compensatory transformation. Priborostroenie no.11:3-5 N '64.
(MIRA 18:1)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

L 45800-65 EWT(d)/T IJP(c) S/ 30 BH

ACCESSION NR AM4043734 BOOK EXPLOITATION

Vilenkin, N. YA.; Gorin, YE. A.; Kostyuchenko, A. G.; Krasnosel'skiy, M. A.; [illegible]; Maslov, V. P.; Mityagin, B. S.; Petunin, IR. I.; Rutitskiy, YA. B.; Sobolev, V. I.; [illegible]; Faddeyev, L. D.; Tsitlandze, E. S.

Functional analysis (Funktsional'nyy analiz), Moscow, Izd-vo "Nauka", 1964, 424 p. biblio., index. Errata slip inserted. 17,500 copies printed. Series note: Spravochnaya matematicheskaya biblioteka.

TOPIC TAGS: functional analysis, mathematics, operator equation, quantum mechanics, Hilbert space, Banach space, linear differential equation

PURPOSE AND COVERAGE: This issue in a series of Handbooks of the Mathematical Library contains much material grouped basically around the theory of operators and operator equations. It presents the basic concepts and methods of functional analysis, theory of operators in Hilbert space and in conical space, the theory of nonlinear operator equations, the theory of standard rings applied to equations in partial derivatives, to integral equations. A separate chapter is devoted to the basic operator of quantum mechanics. Citing of the theory of generalized functions takes up a large part of the book. The book explains mathematical facts; theorums and formulas, as a rule, are given

Card 1/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

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ACCESSION NR AM4043734

without proofs. Main attention is given to concepts without excessive detail. The book is intended for mathematicians, mechanical engineers, and physicists. It contains much of value for students and graduate students.

TABLE OF CONTENTS [abridged]:

Foreword — 13
Ch. I. Basic concepts of functional analysis — 17
Ch. II. Linear operators in Hilbert space — 79
Ch. III. Linear differential equations in Banach space — 146
Ch. IV. Nonlinear operator equations — 187
Ch. V. Operators in space with a cone — 229
Ch. VI. Commutative standard rings — 256
Ch. VII. Quantum mechanics operators — 279
Ch. VIII. Generalized functions — 323
Bibliography — 414
Subject Index — 418

SUBMITTED: 06Feb64 SUB CODE: MA

NO REF SOV: 038 OTHER: 012

Card 2/2

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L 4065-66 EWT(d)/T IJP(c)
ACCESSION NR: AP5025579

UR/0115/65/000/009/0001/0003
681.2.088.001.1

27
B

AUTHOR: Sobolev, V. I. 44,55 16,44,55

TITLE: A probability method for evaluating measurement error with regard to the distribution of the quantity being measured

SOURCE: Izmeritel'naya tekhnika, no. 9, 1965, 1-3

TOPIC TAGS: error statistics, probability

ABSTRACT: Since measurement error distribution is affected by the distribution of random values in the quantity being measured, the authors propose a method for determining measurement error which takes the distribution of the quantity being measured into account. It is found that there may be a very strong relationship between the distribution of random measurement error and that of the quantity being measured which must be taken into account when the root-mean-square error of the measuring device and the standard deviation of the quantity being measured are of the same order of magnitude. In the case of normal distribution laws, this relationship may be accounted for by using the formula derived in this paper for the rms

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value of the error and introducing the factor for the mathematical expectation of the error. If the standard deviation of the quantity being measured is of a higher order of magnitude than the rms error of the measuring device, the effect which the distribution of the quantity being measured has on the distribution of the measurement error is reduced. In this case there is no need to account for the distribution of the quantity being measured since the measurement error distribution practically coincides with the error distribution of the measuring device. Orig. art. has: 1 figure, 11 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MA

NO REF SOV: 001 OTHER: 000

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APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

LYUSTERNIK, Lazar' Aronovich; SOBOLEV, Vladimir Ivanovich; KUPTSOV, N.P., red.; BITYUTSKOV, V.I., red.

[Elements of functional analysis] Elementy funktsional'-nogo analiza. Izd.2., perer. Moskva, Nauka, 1965. 519 p. (MIRA 19:1)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. K.:

Sobolev, V. K.:

"On the nerves of the heart in various age periods (extracardial portion)." Leningrad Pediatrics Medical Inst. Leningrad, 1956. (Dissertation for the Degree of Candidate in Medical Sciences).

Knizhnaya letopis'
No. 21, 1956. Moscow.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

FILATOV, A.N., prof.; KARTASHEVSKIY, N.G.; MEL'NIKOVA, V.N.; SOBOLEV, V.K. (Leningrad)

Possibility of utilizing a cadaver lung as a dialyzing system in renal insufficiency instead of the artificial kidney; experimental study. Pat. fiziol. i eksp. terap. 6 no.3:49-52 My-Je'62 (MIRA 17:2)

1. Iz laboratorii konservirovaniya i peresadki tkaney Leningradskogo nauchno-issledovatel'skogo instituta perelivaniya krovi (nauchnyy rukovoditel' instituta - chlen-korrespondent AMN SSSR, zasluzhennyy deyatel' nauki prof. A.N. Filatov, direktor - dotsent A.D. Belyakov).

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

Sobolev, V.Kh.

Kh

Sobolev, V. H., and Sokolov, L. D. On the pressure of a rigid die on a plastic medium. Akad. Nauk SSSR, Inženernyĭ Sbornik 3, no. 2, 21–24 (1949). (Russian)

Using (what appears to this reviewer) very bad engineering approximations, the authors determine the stress distribution and the change of the surface shape in a plate of finite thickness produced by indentation of a rigid stamp.

H. I. Ansoff (Santa Monica, Calif.).

Source: Mathematical Reviews, Vol 13 No.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. Kh.

"Representation of the Integral of Equations of the Statistical Theory of Elasticity by Metaharmonic Functions." Cand Phys-Math Sci, Siberian Metallurgical Inst, Tomsk, 1953. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOV/124-58-1-944

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 125 (USSR)

AUTHOR: Sobolev, V. Kh.

TITLE: On One Form of the Solutions of the Equations of the Three-dimensional Theory of Elasticity in Terms of Deflections (Ob odnoy forme resheniy uravneniy protranstvennoy teorii uprugosti v peremeshcheniyakh)

PERIODICAL: V sb.: Tr. nauch. konferentsii Stalinskogo ped. in-ta Nr 1. Kemerovsk. kn. izd-vo, 1956. pp 280-291

ABSTRACT: The solutions of the equations of elasticity in terms of deflections are expressed by means of three harmonic functions; the latter are written in the form of the sum of the products of the hyperbolic functions of one variable coordinate by the functions of the other two coordinates.

M. G. Slobodyanskiy

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

S/148/61/000/002/007/011
A161/A133

AUTHORS: Sobolev, V. Kh., Sokolov, L. D.

TITLE: Mathematical analysis of the stressed state during tension

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 2, 1961, 93 - 95

TEXT: The author points out that neither the ultimate strength nor the true stress used lately for an analysis of plastic deformation processes are suitable indices, for the ultimate strength is only true within the uniform elongation range of the specimens, and the true stress is difficult to determine in experiments. A different method is suggested instead: to use the Körber - Melendorf rule, (Ref. 3: F. Körber. Mitt. Kais. Wilh. Inst. f. Eisenforsch., 3, I, 1922) for the approximate calculation of the true stress from the moment of the neck formation to the rupture of the tension test specimen. However, to obtain more accurate results, it is necessary to analyze the volumetric stressed state in the neck. The forces are presented schematically for the purpose. Two stresses are introduced:

a conditional

$$p = \frac{Q}{\pi r_o^2} \qquad (1)$$

Card 1/3

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and an effective

$$q = \frac{Q}{\pi y^2} \qquad (2)$$

where r_o - the bar radius before elongation; y - the ordinate of the neck; Q - the tension force. The real stress is denoted with p_t. It is obvious that

$$p < q < p_t, \qquad (3)$$

and, denoting with a the neck radius in the thinnest spot, the effective stress will be

$$q_o = \frac{Q}{\pi a^2} \qquad (4)$$

The system is analyzed and the final formula arrived at is

$$q_o = \frac{p_t}{1 + \frac{d}{8\rho}} .$$

where ρ is the neck radius of curvature in the thinnest spot. The same formula had been obtained by Siebel (Ref. 4: E. Siebel. Berichte der Fachausschüsse des Vereins deutscher Eisenhüttenleute. Werkstoffausschussbericht, no. 71, 1925). It is obvious that q_o, d and ρ values determined by test have to be known to find the true stress. There are 2 figures and 4 references: 2 Soviet-bloc and 2 non-

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S/148/61/000/002/007/011
A161/A133

Mathematical analysis of the stressed state during tension

Soviet-bloc.

ASSOCIATION: Sibirskiy metallurgicheskiy institut (Siberian Metallurgical Institute)

SUBMITTED: February 19, 1960

Card 3/3

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.L.

Comparative testing of bimetal antifriction materials. Standartizatsiia 29 no.3:41-43 Mr '65. (MIRA 18:5)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

S/020/62/144/005/008/017
B106/B138

AUTHORS: [illegible], V. A., Tyuryayev, I. Ya., Sobolev, V. M., and [illegible], Yu. N.

TITLE: Preparation of butadiene by oxidative dehydrogenation of n-butylenes

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 5, 1962, 1053-1055

TEXT: The authors studied the oxidation of an industrial butylene fraction (composition in % by volume: C_3H_6: 0.3; C_4H_{10}: 3.0; 1-C_4H_8: 22.1; 2-C_4H_8: 71.6; C_4H_6: 2.4; C_5 and higher: 0.4) with air or oxygen on mixed catalysts consisting of metal oxides of groups V and VI of the periodic system on various carriers. The oxidation was conducted in a continuous flow system under atmospheric pressure. The molar ratio air: C_4H_8 was 2.06-2.42. Butadiene is the main oxidation product forming 38-45 mole% between 460 and 550°C, with initial butylene (31-45.5%), carbon dioxide (9.2-14.5%), and small amounts of low hydrocarbons (2.4-7.8%) as well.

Card 1/3

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Practically no hydrogen and only very small amounts of carbonyl compounds form. 97-99% oxygen is used in the oxidation. The best conditions for oxidative dehydrogenation of n-butylenes into butadiene are: temperature: 530°C, volume velocity of butylene: 600 hrs^{-1}; molar ratio: $C_4H_8 : O_2 = 2 : 1$; dilution of butylene with water vapor: $C_4H_8 : H_2O = 1 : 3 - 1 : 4$ (molar ratio) (Fig. 1). At 530°C, an increase in volume velocity from 600 to 860 hrs^{-1} reduces the butadiene yield from 50 to 45% and increases the reaction selectivity from 85 to 93%. Higher oxygen concentration will raise the degree of butylene conversion, and hence the yield of deep oxidation products (CO, CO_2), and reducing selectivity. A change of from 1 : 4 to 1 : 12 in the molar dilution ratio butylenes:water vapor has practically no effect on the conversion or selectivity. Increasing the ratio $C_4H_8 : H_2O$ to 1 : 1 accelerates formation of the product of deep oxidation, and reduces the butadiene yield. In contrast to the dehydrogenation of $C_4H_8 \longrightarrow C_4H_6 + H_2$, the main reaction $C_4H_8 + 1/2\ O_2 \longrightarrow C_4H_6 + H_2O$ is exothermic. Owing to the hydrogen bond, the butadiene yield is not limited by the reaction equilibrium. This opens up new possibilities for producing butadiene and isoprene. There

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are 3 figures and 1 table. The English-language reference is: R. U. Brettow, Shen-Wu Wan, B. F. Dodge, Ind. and Eng. Chem., 44, 594 (1952).

ASSOCIATION: Nauchno-issledovatel'skiy institut monomerov dlya sinteticheskogo kauchuka (Scientific Research Institute of Monomers for Synthetic Rubber)

PRESENTED: March 13, 1962, by B. A. Kazanskiy, Academician

SUBMITTED: March 13, 1962

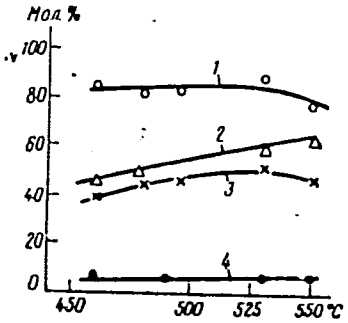

Fig. 1: Temperature dependence of the yields of reaction products.
Legend: (1) selectivity; (2) C_4H_8 conversion; (3) yield of C_4H_6 per passage; (4) CO_2 yield.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

S/080/63/036/002/014/019
D403/D307

AUTHORS: Sobolev, V. M., Shcherbakova, N. V. and Shmarlin, V. S.

TITLE: Formation of cyclopentadiene during the preparation of isoprene by 2-stage dehydrogenation of isopentane

PERIODICAL: Zhurnal prikladnoy khimii, v.36, no. 2, 1963, 428-430

TEXT: The authors studied (1) the formation of cyclopentadiene (I) in the dehydrogenation of isopentane through isoamylene to isoprene, and (2) the separation of isopentane-isoamylene and isoamylene-isoprene fraction. The K-5 and K-16 (K-5 and K-16) catalysts were used for the 1st and 2nd stage respectively for the dehydrogenation reactions. Cyclopentadiene was found to form during both stages. It is suggested that I forms by the following steps: (a) isopentane isomerizes to n-pentane, some of which is then cyclized to cyclopentane and some dehydrogenated to $CH_3(CH_2)_2CH=CH_2$; (b) the latter cyclizes to $CH_3(CH_2)_2CH=CH$ (II) and dehydrogenates to $CH_3.CH=CH.CH=CH_2$; cyclopentane also dehydrogenates to II; (c)

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product II finally dehydrogenates to I, which is also obtained by the cyclization of $CH_3.CH=CH.CH=CH_2$ with loss of H_2. During the separation of isopentane-isoamylene mixtures, I is found in isoamylene. During the separation of isoamylene-isoprene mixtures, I passes into the isoprene. There is 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy institut monomerov dlya SK (Scientific Research Institute of Monomers for Synthetic Rubber)

SUBMITTED: November 3, 1961

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

L 39391-65 EPF(c)/EWP(j)/EWT(m)/T Pc-4/Pr-4 RM

ACCESSION NR: AP4005737 S/0204/63/003/006/0850/0852

AUTHORS: Kolobikhin, V.A.; Sobolev, V.M.; Tyuryayev, I.Ya.; Myasoyedov, M.I.

TITLE: 1,3-butadiene synthesis by n-butane dehydrogenation

SOURCE: Neftekhimiya, v. 3, no. 6, 1963, 850-852

TOPIC TAGS: butadiene derivative, butane, butane dehydrogenation, butadiene synthesis, butadiene, olefins synthesis, dehydrogenation, alpha butylene, beta butylene, gamma butylene, propene

ABSTRACT: The authors studied the use of elemental iodine to increase the butadiene yield with n-butane dehydrogenation and ultimately to recover I_2 according to the reaction $C_4H_{10} + 2I_2 \quad C_4H_6 + 4HI$, $MeO + 2HI \quad H_2O + MeI_2$, $MeI_2 + 1/2O_2 \quad MeO + I_2$, using as the HI acceptor metals with changing valence in a flow system at 550C, and varying the molar ratio $I_2 : C_4H_{10}$ from 0 to 1.43. After the test was run for 30 minutes, the acceptor was easily regenerated by blowing air at the reaction temperature, and the iodine was isolated. The ratio $I_2 : C_4H_{10}$ determined the conversion rate, which increased from 36 to 70% with a ratio increase from 0.25 to 0.75 and reached

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ACCESSION NR: AP4005737

92-94% and a C_4H_6 yield of 52.8% at the highest ratio (selectivity 75% as regards $C_4H_6 + C_4H_8$). Without iodine, conversion was 16% and selectivity 28-30%. Byproducts are listed; the iodine loss was small. The iodine addition could be reduced by adding small quantities of O_2 for interior iodine regeneration. At a molar ratio $I_2:C_4H_{10} = 0.56$ and additional air, the conversion increased from 57 to 74% with slightly increased selectivity. Decreasing the temperature decreased conversion but increased selectivity. Continuous reaction and regenerating may be effected in one piece of equipment. Orig. art. has: 4 equations, 2 tables, 1 figure.

ASSOCIATION: Nauchno-issledovatel'skiy institut monomerov dlya SK (Scientific Research Institute of Monomers for SK)

SUBMITTED: 28Dec62

ENCL: 00

SUB CODE: MT, GC

NR REF SOV: 001

OTHER: 004

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KOLOBIKHIN, V.A.; SOBOLEV, V.M.; MYASOYEDOV, M.I.

Obtaining butadiene-1-3 by the oxidative dehydrogenation of n-butane in the presence of iodine and manganese oxide. Neftekhimia 4 no.3:386-390 My-Je '64. (MIRA 18:2)

1. Nauchno-issledovatel'skiy institut monomerov dlya sinteza kauchuka, Yaroslavl'.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KOLOBIKHIN, V.A.; SOBOLEV, V.M.; BOL'SHAKOV, D.A.; MYSOVYKOV, M.I.

Dehydrogenation of n-butane in butadiene H_2S in the presence of iodine on an apparatus with an Mn_3O_4 moving bed. Neftekhimia 4 no.4:535-539 Jl-Ag '64. (MIRA 17:10)

1. Nauchno-issledovatel'skiy institut monomerov dlya sinteticheskogo kaushuka.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.M.; PROKOF'YEV, Ya.N.; FEL'DBLYUM, V.Sh.; ZAKHAROV, B.N. [deceased]; MKHEIDZE, M.A.

Low-temperature viscosimetric tests in the development of the technology for the synthesis of butyl rubber. Kauch. i rez. 23 no.6:1-4 Je '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut monomerov dlya sinteticheskogo kauchuka.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

L 60982-65 EPF(c)/EWP(j)/EWT(m) Pc-4/Pr-4 RM

ACCESSION NR: AP5018370 UR/0064/65/000/007/0495/0497
661.715.352:66.067.84

AUTHORS: Shcherbakova, N. V.; Basner, M. Ye.; Sobolev, V. M.

TITLE: Removal of cyclopentadiene from isoprene by maleic anhydride solution

SOURCE: Khimicheskaya promyshlennost', no. 7, 1965, 495-497

TOPIC TAGS: organic chemistry, synthetic rubber, maleic anhydride, isoprene

ABSTRACT: A method was developed for the removal of cyclopentadiene from isoprene. The method is based on the reaction of cylopentadiene with maleic anhydride according to the Diels-Alder reaction (I), and on the reaction of maleic anhydride, introduced into isoprene in a dimethyl formamide solution, with isoprene (II). The optimum conditions of purification ensuring a minimum consumption of maleic anhydride and isoprene for the side reaction were determined, and the velocity constants of the two reactions were calculated. The kinetic equations are given. The kinetic curves showing the variation in the cyclopentadiene content in isoprene at different maleic anhydride concentrations and at different temperatures are plotted. The temperature coefficient for reaction (I) is equal to 1.7, that of reaction (II) is 21; with increasing temperature the rate of the first

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ACCESSION NR: AP5018370

reaction increases more slowly than the rate of the second reaction. The equations obtained permit choosing the optimum parameters of purification. If the permissible final cyclopentadiene content in isoprene is 0.0003% (0.309×10^{-4} mole/l), the appropriate contact time is 60 min and the temperature is 30C. From the known initial amount of cyclopentadiene in isoprene the amount of maleic anhydride necessary for obtaining the desired degree of purification is calculated. The equations given here can be used without introducing great errors for a cyclopentadiene content below 0.5% and at a concentration of maleic anhydride in dimethyl formamide of 25-30%. The procedure for industrial conditions is described. It is technologically simple, excludes the use of inflammable substances, and results in an isoprene of the desired purity. Orig. art. has: 4 graphs and 7 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MT, GC

NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

L 6613-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AP4040543 S/0064/64/000/006/0419/0420

52

AUTHOR: Shcherbakova, N. V.; Sobolev, V. M.; Shmarlin, V. S.

TITLE: Purifying isoprene with aqueous maleic acid solutions

SOURCE: Khimicheskaya promy*shlennost', no. 6, 1964, 419-420

TOPIC TAGS: isoprene, purification, cyclopentadiene removal, stereospecific polymerization, cyclopentadiene maleic acid adduct, isoprene maleic acid adduct, endomethylenetetrahydrophthalic acid, purification process

ABSTRACT: The cyclopentadiene (CPD) content in isoprene used in stereospecific polymerization must be reduced to less than 0.0005%. The method developed for purifying isoprene of CPD is based on reacting CPD with maleic acid in a heterogeneous system of an aqueous solution of maleic acid and isoprene to form 3,6-endomethylene-1,2,3,6-tetrahydrophthalic acid. Isoprene will also react, but less readily, with maleic acid to form 4-methyl-1,2,3,6-tetrahydrophthalic acid; this material accumulates in the aqueous phase. Increasing the temperature (temperature coefficient is 1.54), the concentration of the acid solution and the ratio of the water: hydrocarbon phases, increases the rate of reaction. However, the rate of

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ACCESSION NR: AP4040543

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mixing the phases has the greatest effect on the process rate; increasing the intensity of agitation reduces the time required for purification from 8.4 minutes when shaking the flask to 0.029 minutes when subjected to the action of a centrifugal pump. The CPD-maleic acid adduct is insoluble in isoprene, and at 10-40C its solubility in the aqueous maleic acid (about 25%) solution is 1-4%. The acid solution may be reused until saturated with the adduct, which may then be precipitated so that the solution may be recycled. Orig. art. has: 2 tables and 3 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00

SUB CODE: GC NO REF SOV: 000 OTHER: 000

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APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.M.; MEDZHIBOZHSKIY, M.Ya.; FILIPPOVA, N.Ya.

Economic comparison of oxygen and compressed air methods for the intensification of steel smelting. Izv.vys.ucheb.zav.; chern.met. 8 no.6:202-206 '65. (MIRA 18:8)

1. Dnepropetrovskiy filial Instituta avtomatiki, Donetskiy nauchno-issledovatel'skiy institut chernoy metallurgii i Dnepropetrovskiy filial Instituta ekonomiki AN UkrSSR.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

[illegible]

[illegible] from isoprene with the maleic anhydride [illegible] Kolm.prom. [illegible] 7:[illegible] [illegible] '6[illegible].

(MIRA 18:8)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KOLOBIKHIN, V.A.; MYASOYEDOV, [redacted]; SOKOLOV, V.M.

Oxidative dehydrogenation of n-butane to divinyl in the presence of iodine and acceptor on a unit with continuous action. Khim. prom. 42 no.9:651-653 S '65. (MIRA 18:9)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.M., kand.tekhn.nauk, dotsent

Standardization of operating bridge cranes. Vest. mashinostr. 46 no.1:34-37 Ja '66. (MIRA 19:1)

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L 18448-66

ACC NR: AP6002553 (A) SOURCE CODE: UR/0286/65/000/023/0053/0053

53
B

AUTHORS: Nartov, Yu. A.; Sobolev, V. M.; Portnoy, M. G.

ORG: none

10

TITLE: Acoustic receiver. Class 42, No. 176699

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 53

TOPIC TAGS: acoustic transducer, acoustic detector, electromagnetism, magnetic circuit, radio receiver

ABSTRACT: This Author Certificate presents an acoustic receiver based on the production of an output voltage by modulating a magnetic flux, and containing an electromagnetic system and a membrane. To provide for selective sampling of the acoustic signals and to increase the sensitivity, the electromagnetic system has resonating plates made of magnetically soft material, mounted symmetrically in the center part of the magnetic circuit (see Fig. 1).

2

UDC: 534 232:534.121.1

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ACC NR: AP6002553

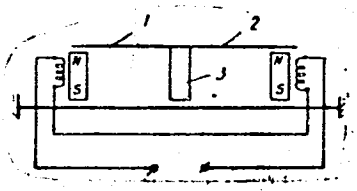

Fig. 1. 1 and 2 - resonating plates; 3 - center rod (center part) of magnetic circuit.

Orig. art. has: 1 diagram.

SUB CODE: 17, 09/ SUBM DATE: 14Dec64

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APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. K.

"Investigation of Traveling Mechanisms of Transport Bridges." Sub 21 May 51, Moscow Order of the Labor Red Banner Higher Technical School imeni N. E. Bauman

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KALININ, V.K.; MIRONOV, K.A.; VITEVSKIY, I.V.; NIKIFOROV, B.D.; SESYUNIN, V.S.; SOBOLEV, V.M.; ZOROKHOVICH, A.Ye., kandidat tekhnicheskikh nauk; VERINA, G.P., tekhnicheskiy redaktor.

[Electric circuits of electric locomotives and maintenance of the equipment] Elektricheskie skhemy elektrovozov i ukhod za apparaturoi. Moskva, Gos.transp.zhel-dor.izd-vo, 1955. 178 p. (MIRA 8:4)
(Electric locomotives)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

GUSE, V.N.; LEGOSTAYEV, Ye.A.; SOBOLEV, V.M.

The productivity of electric lovomotives has been increased. (MLRA 10:5)
Elek. i tepl. tiaga no.2:14-16 F '57.

1. Nachal'nik depo Perm' II Sverdlovskoy dorogi (for Gusev) 2. Zamestitel' nachal'nika depo (for Legostayev) 3. Nachal'nik proizvodstvenno-tekhnicheskogo otdela (for Sobolev).
(Electric locomotives)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

RYMASHEVSKIY, D.A., inzh.; SOBOLEV, V.M., inzh.; KOVRIZHKIN, N.P., inzh.; PUSHKAREV, I.F., inzh.; STREKOPYTOV, V.V., inzh.

Answering readers' queries. Elek.i tepl.tiaga 6 no.5:41 My '61. (MIRA 15:6)

(Electric locomotives) (Diesel locomotives)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.M., inzh.

Effect of the soiled surface of insulation materials on the operational reliability of the electric traction apparatus of electric locomotives. Trudy TSNII MPS no.246:71-96 '62. (MIRA 16:2)

(Electric locomotives--Maintenance and repair)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.M., kand. tekhn. nauk; SONIN, V.S.; DURANDIN, G.B., inzh.

Selecting the optimum service life of cables for electric locomotives. Vest. TSNII MPS 24 no.8:29 '65. (MIRA 19:1)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. N.

SOBOLEV, V. N.: "Research on the excitement of hydrogen and helium during solar protuberances". Leningrad, 1955. Acad Sci USSR, Main Astronomical Observatory. (Dissertation for the Degree of Candidate of Physicomathematical Sciences)

SO: Knizhnaya Letopis', No. 40, 1 Oct 55

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

Sobolev, V. M.

Possibility of ionizing hydrogen and helium in the chromosphere and in protuberances by the soft x-radiation of the corona. V. M. Sobolev. *Solnechnye Dannye* 1956, No. 2, 126-9; *Referat. Zhur., Astron., Geodes.* 1957, No. 2112.—The question of ionization by the hard coronal radiation was discussed and it was pointed out that the ionization of the protuberances cannot be brought about by coronal radiation of frequencies of the resonance lines of Ne VIII (λλ 770-768) and Mg X (λλ 625-610) owing to the high optical d. of the protuberance at these frequencies. It was shown that the magnitude of the current of soft x-radiation (λλ 60-100) which is necessary for ionizing H in protuberances and in the chromosphere is several times greater than the observed value. The magnitude of the current necessary to ionize 10% of the He is also several times greater than the observed value. On the basis of these calcns. the conclusion is drawn that the ionization which occurs must be due to internal factor, e.g., electron collision. J. R. L.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KRAT, V.A.; SOBOLEV, V.M.

Excitation of helium in the solar chromosphere. Dokl.AN Azerb.SSR 12 no.9:617-621 '56. (MLRA 9:10)

1.Predstavlene akademikom Akademii nauk Azerbaydzhanskoy SSR Z.I.Khalilovym.
(Helium) (Sun--Prominences)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KRAT, V.A.; SOBOLEV, V.M.

The solar chromosphere. Izv.GAO 21 no.1:116-139 '57. (MIRA 13:4)

(Sun)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V. M.; and KRAT, V.;

"Hydrogen and Helium Excitation in the Chromosphere and Chromospheric Flares,"

Paper presented at the 11th General Assembly of the IAU, Moscow, [illegible] 1958.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

26-58-4-31/45

AUTHOR: Sobolev, V.M., Candidate of Physico-Mathematical Sciences

TITLE: On the Solar Eclipse of April 19, 1958 (O zatmenii solntsa 19 aprelya 1958 goda)

PERIODICAL: Priroda, 1958, Nr 4, p 110 (USSR)

ABSTRACT: The author gives a description of the ring-shaped solar eclipse which is expected on April 19, 1958, when the sun, not fully covered by the moon, will still be visible as a narrow ring. This eclipse is of special interest to radio-astronomers, as it will enable to study the sun with radio-telescopes using the moon as a natural screen, which covers successively different portions of the sun. An expedition consisting of Soviet radio-astronomers of the Pulkovskaya observatoriya (Pulkovo Observatory) and the Fizicheskiy institut imeni P.N. Lebedeva AN USSR (Institute of Physics imeni P.N. Lebedev of the AS, USSR) is traveling to China to study the eclipse. Observations will cover: measuring of the polarization of solar radio radiation, the distribution of radio intensity over the solar disc, determination

Card 1/2

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26-58-4-31/45

On the Solar Eclipse of April 19, 1958.

of local radio emission sources, etc.

ASSOCIATION: Glavnaya astronomicheskaya observatoriya (Pulkovo)
(Main Astronomical Observatory (Pulkovo)

AVAILABLE: Library of Congress

Card 2/2

1. Solar eclipse-Applications 2. Sun-Radiation-Analysis
3. Telescopes-Applications

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.M.; PROKOF'YEV, Ya.N.; BUBNOVA, L.A.; YATSYSHINA, T.N.

Separation of isobutylene from isobutylsulfuric acid by hydrocarbons without diluting acid with water. Khim. prom. no. 4:268-272 Ap '64. (MIRA 17:7)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.M.

Studying the excitation of hydrogen and helium in solar prominences. Izv.GAO 20 no.5:12-67 '58. (MIRA 13:5)

(Sun--Prominences)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

KRAT, V.A.; SOBOLEV, V.M.

Excitation of helium in the solar chromosphere. Izv.GAO 20 no.5:68-73 '58. (MIRA 13:5)
(Sun)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOV/35-59-10-8079

Translation from: Referativnyy zhurnal. Astronomiya i Geodeziya, 1959, Nr 10, pp 63-64 (USSR)

AUTHORS: Krat, V.A., Sobolev, V.M.

TITLE: On the Physical Conditions in Weak Chromospheric Flares

PERIODICAL: Izv. Gl. astron. observ. v Pulkove, 1958, Vol 21, Nr 3, pp 2-10 (résumé Engl.)

ABSTRACT: The spectra of six weak (force 1) chromospheric flares obtained in the 1st order of the diffraction grid of the horizontal solar telescope of the Main Astronomical Observatory AS USSR in Pulkovo, were studied photometrically. Profiles of emission lines H, K, H_ε, H_8, H_9 and He 3889 were determined; the profile of the last line was determined from the asymmetry in the wings of the H_8 line; half-widths and equivalent widths of the lines were found. Lines H and K were found to be strongly distorted by self-absorption. Therefore, the method in which the effect of self-absorption is used was utilized to find the number of Ca II ions. It was found that the number of Ca III ions ($2 \cdot 10^7$) exceeded by an order of magnitude the number of Ca II ions. During calculations, the electronic temperature was taken to be equal to 10,000°K and the temperature of the excitation radiation to be 5,000°K,

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On the Physical Conditions in Weak Chromospheric Flares SOV/35-59-10-8079

$n_e = 10^{11}$. According to the known ratio of the concentration of calcium and hydrogen atoms, it was found that the concentration of hydrogen must equal 10^{13} per cm^3. In lines of the Balmer series, under certain assumptions, the concentration of hydrogen was likewise estimated to equal 10^{13} per cm^3. It was found that in chromospheric flares, hydrogen and calcium glow in the same filaments, while the helium line λ 3889 is formed in hotter "helium" flare filaments with $T_e \approx 25{,}000^{\circ}K$, i.e. with the electronic temperature obtained earlier by the authors for the helium filaments of the chromosphere on the whole. The authors consider that the flares of force 1 arise in the same way as "whiskers", that is, continuously, and that solar service stations miss a large part of such flares. Bibl. 8 titles.

E.Ye. Dubov

Card 2/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

88933

S/035/61/000/001/009/019
A001/A001

3,1540 (1062,1128,1168)

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1961, No. 1, p. 50, # 1A364

AUTHOR: Sobolev, V.M.

TITLE: On Hydrogen Ionization in Sun's Atmosphere

PERIODICAL: "Solnechnyye dannyye ", 1959 (1960), No. 12, pp. 69 - 73

TEXT: The author derives equations of hydrogen ionization equilibrium and solves them assuming that ionization happens only from the ground state and from the second level. To determine n_2, he writes down corresponding equations of stationary state, in which enters density of $L\alpha$ emission field and in which excitation to the third level (i.e., density of $H\alpha$ emission) is not taken into account. The density of emission field for $L\alpha$ is determined by Planck's formula for temperatures 4,000, 5,000, 6,500, 9,000 and 11,500°K. The table of the values of $x = n_1/n_1$ is presented for T_e equal to 5,000, 6,000, 7,500, 10,000, 12,500, 15,000, and 20,000°K and $n_e = 10^9 - 10^{15}$ cm^{-3}. The recently obtained values of effective cross sections are used in calculations. E. Dubov

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

Observations of the Chromosphere on the Sun's Disk and Limb in the Radiation of the K-Line of Ionized Calcium by Means of an Interference-polarization Filter SOV/20-127-4-18/60

sun's limb, and figure 3 sunspots in the center of the sun's disk. The new IPF can be used - together with a large heliostats - for the investigation of the fine structure of the chromosphere on the sun's disk and limb as well as for the investigation of prominence motion. The authors thank Academician V. P. Linnik for his interest in the work. There are 3 figures and 9 references, 7 of which are Soviet.

SUBMITTED: April 7, 1959

PRESENTED: April 20, 1959, by V. P. Linnik, Academician

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

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A001/A101

On observations ...

of brightness in K proceeds more sharply. A time difference of brightness maxima is noted. Photographs of the active region and chromospheric flare in rays Hα and K of Ca II are presented, as well as changes in flare brightness in both rays.

V. Yesipov

[Abstracter's note: Complete translation]

Card 2/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

22300

S/035/61/000/005/019/042
A001/A101

3,1540

AUTHORS: Krat, V.A., Sobolev, V.M.

TITLE: Excitation of helium in the chromosphere and chromospheric flares

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 5, 1961, 53, abstract 5A351 ("Izv. Gl. astron. observ. v Pulkove", 1960, v. 21, no. 4, 2 - 16, Engl. summary)

TEXT: The authors calculated the time of establishing the stationary distribution of helium atoms by states. In flares it should amount to ~1 sec, in chromospheric filaments to ~1 min. Stationarity equations for the levels 2^3S, 2^3P, 3^3P, 3^3D, 4^3D and 4^3S of He I are derived and solved, as well as the equation of ionization equilibrium in which is taken into account only ionization by electronic impact from levels 1^1S, 2^3S, 2^1S and photoionization from levels 2^3S and 2^1S. Only main terms are used in the equations, since the rigorous solution of the problem has no sense in view of the lack of certainty in the numerical values of effective cross sections of ionization and excitation by electronic impact. Numerical values of ratios n_+/n_1 and n_k/n_1 (where k is the number of the corresponding level) and intensities of emission lines λλ10,830, 3889, 5875 and

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

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S/035/61/000/005/019/042
A001/A101

Excitation of helium in the chromosphere ...

4713, calculated in ergs per 1 atom in the ground state, are obtained for a series of temperatures from 10,000 to 150,000°K and electronic densities from 10^{10} to 10^{15} cm^{-3}. For the same values of n_e and T_e a table is compiled which gives the ratios of intensities of lines $\lambda\lambda$10,830, 3889, 4471 and 4713 to the intensity of the D_3 line. At $n_e \leq 10^{12} cm^{-3}$ and $10,000^\circ \leq T_e \leq 150,000^\circ K$ the ratios of intensities of helium lines prove to be constant, which agrees well with observational data for the undisturbed chromosphere. For helium filaments the most probable values of temperature and electronic density are $T_e = 25,000^\circ K$ and $n_e = 10^{10}$ cm^{-3}. However, for the flare on June 24, 1956, the value of $n_e > 10^{14}$ cm^{-3}, was obtained. The arising of D_3 in emission on the disk can not be explained by any T_e and n_e in the optically thin layer. Apparently some other mechanisms of excitation should be considered in this case. The problem is discussed on the conditions of appearance of line λ 4686 of He II. Stationarity equations are solved for levels 4F and 3D of He II, as well as the equation of ionization equilibrium with allowance for ionization by electronic impact from the ground level only. Photoionization by hard radiation is not taken into account, because the gas must be opaque at considerable ionization of helium in Lyman continuum of He II (which is overlapped also by the Lyman continuum of hydrogen and ground continuum of He I). Calcula-

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33019

S/035/62/000/001/008/038
A001/A101

3.1540 (also 1137)

AUTHOR: Sobolev, V. M.

TITLE: The stationary distribution of hydrogen atoms in the Sun's atmosphere over the states

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 1, 1962, 55, abstract 1A423 ("Izv. Gl. astron. observ. v Pulkove", 1961, v. 22, 52-85, Engl. summary)

TEXT: The author analyzes stationary state equations for hydrogen. Excitation from electron impact, recombinations, excitation by proper emission at Lyman frequencies and by Balmer emission of the photosphere, are taken into account. The introduction into stationary state equations of Menzel factor b_k is held incorrect by the author. This factor expresses deviation of k-level population from that which would have been at the local thermodynamic equilibrium with temperature equal to electronic temperature of the medium T_e. New values for effective cross sections of hydrogen excitation are used in solution of equations. The solutions of stationary state equations for various values of hydrogen atom concentration in normal state ($10^9 \leq n_1 \leq 10^{15}$), electronic temperature (5,000°

Card 1/2

Card 2/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

S/797/61/022/002/002/007
E032/E114

AUTHOR: Sobolev, V.M.

TITLE: The steady state distribution of hydrogen atoms over the states in the solar atmosphere

SOURCE: Pulkovo. Astronomicheskaya observatoriya. Izvestiya. v.22, no.2 (167). 1961. 52-85

TEXT: A comprehensive study is reported of the steady state distribution of hydrogen atoms over their energy states under the conditions prevailing in the solar atmosphere. The following factors affecting the distribution are taken into account: 1) excitation and ionisation by electron impact, using new numerical data reported by V.I. Ochkur (Vestn. LGU, no.4, 1958) and W.L. Fite and R.T. Brackmann (Phys.Rev. v.112, no.4, 1958) and assuming that the solar atmosphere is optically thick at frequencies corresponding to the Lyman series and optically thin for photospheric Balmer emission; 2) photo-ionisation and excitation by Balmer radiation using the theory of A.B. Severnyy (Izv. KrAO, v.19, 1958); and 3) excitation by the intrinsic emission of the solar atmosphere in the Lyman frequencies.

Card 1/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

ACCESSION NR: AT4012199 S/2797/63/023/002/0028/0041

AUTHOR: Sobolev, V. M.

TITLE: Stationary distribution of He II atoms according to sublevels and He II line intensities.

SOURCE: Pulkovo. Astron. observ. Izvestiya, v. 23, no. 2(173), 1963, 28-41

TOPIC TAGS: helium atom, helium atom stationary distribution, helium line, helium spectrum line intensity, helium sublevel, stationary state equation, electron impact excitation, Planck temperature

ABSTRACT: Stationary state equations have been developed for different He II sublevels with the principal quantum number n = 2, 3, 4, 5, 6 and 7. In deriving them, various types of excitation were treated: normal and lower-level electron-impact excitation; recombinations; λ = 304 resonance- and Lα hydrogen-line radiation-absorption excitation. The ratio of the He III ion number to the He II ion number was calculated and the λ = 4686 line fine structure examined. Data obtained were compared with observations. It was concluded that electron impact is fundamental in λ = 4686 line excitation; Lα-hydrogen radiation absorption contributes significantly only at T_e < 30,000 C if the Lα intensity is characterized by a Planck temperature of the order of 20,000C. Relative line intensities were obtained.

Card 1/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

ACCESSION NR: AT4012199

and a ratio of the $\lambda = 4686$ line components determined which gives some idea as to the character of the excitation. From the system of stationary state equations, the He II line intensities and sublevel populations were determined. "In conclusion, the author expresses his gratitude to Prof. V. A. Krat for valuable comment, and discussion, and to A. T. Demyanova and M. N. Stoyanova for help in the calculations." Orig. art. has: 12 tables and 44 formulas.

ASSOCIATION: Astronomicheskaya observatoriya, Pulkova (Pulkova Observatory)

SUBMITTED: 00 DATE ACQ: 27Feb64 ENCL: 00

SUB CODE: AS, PH NO REF SOV: 005 OTHER: 007

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

PROKOF'YEV, V.K., doktor fiz.-matem. nauk; SOBOLEV, V.M., kand. fiz.-matem. nauk

Twelfth Colloquium on Infrared Spectroscopy of Celestial Bodies. Vest. AN SSSR 33 no.10:92-93 O '63. (MIRA 16:11)

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3

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Pi-4 SSD(a)/AFWL/SSD(b)/SSD/BSD/RAEM(a)/AFETR/ESD(t) GW/WS S/
ACCESSION NR AM4040598 BOOK EXPLOITATION B+1

Vyazanitsyn, V. P.; Gnevyshev, M. N.; Dobrovol'skiy, O. V.; Krat, V. A.; Markov, A. V.; Molchanov, A. P.; Sobolev, V. M.; Sharonov, V. V.

A course in astrophysics and stellar astronomy. v. 3 (Kurs astrofiziki i zvezdnoy astronomii. t. 3), Moscow, Izd-vo "Nauka", 1964, 375 p. illus., biblio., indices. 2,150 copies printed.

TOPIC TAGS: astrophysics, stellar astronomy

TABLE OF CONTENTS [abridged]:

Foreword -- 7
Part 1. The Sun
Ch. I. Introduction -- 9
Ch. II. Linear spectrum of the sun -- 24
Ch. III. Structure of the photosphere; granulation, spots, flares -- 41
Ch. IV. Chromosphere -- 69
Ch. V. Protuberances -- 108
Ch. VI. Chromosphere flares -- 130
Ch. VII. Solar corona -- 144

Card 1/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

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ACCESSION NR AM4040598

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Ch. VIII. Solar service -- 164
Ch. IX. Solar radio emission -- 176
Part 2. Planet system
Ch. X. Moon -- 226
Ch. XI. Physics of the planets -- 250
Ch. XII. Description of the nature of separate planets -- 282
Ch. XIII. Physical properties of small planets -- 309
Ch. XIV. Comets, meteors, and zodiacal light -- 316
Index of names -- 369
Subject index -- 373

SUBMITTED: 18Feb64 NR REF SOV: 135

SUB CODE: AA

OTHER: 107

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6"

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SOV/133-59-10-37/39

AUTHORS: Sobolev, V. M., Gershgorin, S. Ye.

TITLE: Important Reserve for the Increase of Labor Productivity in Open-Hearth Production. (A discussion)

PERIODICAL: Stal', 1959, Nr 10, pp 953-955 (USSR)

ABSTRACT: The authors recommend introducing reserve furnaces to make shut-down repair procedures more efficient, so that emergency repairs can be carried out more thoroughly and over longer periods of time without essential losses of metal. By way of statistical calculation they prove that the investment in the building of these exchangeable furnaces would pay for itself after 4 to 17 years. Such furnaces are widely used in England to reduce the number of repairs. There are 2 tables; and 1 Soviet reference.

Card 1/1

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SOBOLEV, V.M., inzh.

Feeding of hot ingots into soaking pits. Stal' 21 no.3:280-285 Mr '61. (MIRA 14:6)

1. Zavod "Zaporozhstal'."
(Steel ingots) (Furnaces, Heating)

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SOBOLEV, V.M.

Reducing costs of the blast furnace process by improved organization in the ore yard. Izv. vys. ucheb. zav.; chern. met. 5 no.3:202-207 '62. (MIRA 15:5)

1. Dneprodzerzhinskiy metallurgicheskiy zavod - vtuz.
(Blast furnaces--Accounting)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOBOLEV, V.M., kand. ekonom. nauk; MOLCHANOVSKAYA, T.S.

Economic estimate of the efficiency of the existing method of top blowing an open-hearth furnace bath with oxygen. Met. i gornorud. prom. no.6:16-18 N-D '65. (MIRA 18:12)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

LIAKUMOVICH, A.G.; SOBOLEV, V.M.; MICHUROV, Yu.I.; PROKOF'YEV, Ya.N.

Design and calculation of the absorption part elements for isobutylene recovery by sulfuric acid of various concentration. Khim. i tekh. topl. i masel 10 no.9:5-9 S '65. (MIRA 18:9)

1. Sterlitamakskiy zavod sinteticheskogo kauchuka.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

LEYBMAN, Yu.A.; SOBOLEV, V.N.

Analog-digital converter for feeding speech signal information into a computer. Elektrosviaz' 17 no.8:42-48 Ag '63. (MIRA 16:8)

(Speech) (Telecommunication) (Programming (Electronic computers))

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651820020-6

SOFOLEV, V. N.

Dredging Machinery

Improvement of wear-resistant parts of the working parts of dredges.
Rech. transp. 12, No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952. UNCLASSIFIED.

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SOBOLEV, V. N.

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Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

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